

Appl. No. 09/703,542  
Resp./Amdt. dated April 12, 2004  
Reply to Office Action of 01/29/2004

**Amendments to the Specification**

Please replace the paragraphs identified below with the following amended paragraphs.

✓ **Page 6, beginning with the third full paragraph starting on line 21 and ending on line 29, please amend as follows:**

A'   
The present invention provides a novel system and method of monitoring the configuration of the virtual circuits in a communication network in a passive, ~~non-evasive~~ non-invasive way. The normal network traffic is observed and characterized without interference. The monitoring system and method utilize samples of normal data traffic passively extracted by measurement probes connected to the network at any number of points to perform its functions. The system and method are readily automated to provide continuous monitoring. The system and method are independent of the communications network being monitored and therefore, are applicable to a wide variety of network types.

✓ **Page 9, beginning with the seventh full paragraph starting on line 14 and ending on line 24, please amend as follows:**

A2   
The present invention is a system and method for automatically detecting and monitoring the configuration of virtual circuits in a communications network utilizing data stream characterizations obtained by passive collecting and measuring data packets at one or more locations within a communications network. With the present invention, network traffic in the form of data packets carried by a data stream is represented by a set of data stream parameters derived from measurements taken on the packets. The derived set of data stream parameters ~~represent~~ represents the network traffic at a specific point in the network and ~~are~~ is referred to as a 'data stream characterization' hereinbelow. A plurality of data stream characterizations taken at a plurality of points within the network ~~are~~ is used to generate the configuration of the virtual circuits in the network.

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✓ Page 13, beginning with the first full paragraph starting on line 3 and ending on line 10, please amend as follows:

AB The system 100 still further comprises a configuration processing unit (CPU) 108. The CPU 108 generates the physical configuration of the virtual circuits in the network from the data stream characterizations produced by the CCUs 106. Data stream characterizations produced by the CCUs ~~108~~ 106 from data packets collected by the probes 102 at different points in the network are compared by the CPU 108 to identify the physical paths taken by data streams within the network and thereby determine the network configuration. In the preferred ~~embodiment~~ the embodiment, the CPU 108 is a general-purpose computer running software that performs the CPU 108 functions.